Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of a Microstation	)	RM-9208
Radio Broadcasting Service	)	

To: The Commission

COMMENTS
OF
VERNON H. BAKER

Vernon H. Baker ("Baker")/[1], by Counsel, and in response to the Commission's *Public Notice Report No. 2254 (released February 5, 1998)*, hereby submits these Comments in the above-captioned rule making proceeding. In support hereof, Baker submits the following:

1. Baker has a well-documented history of building radio stations in small market areas, and operating them in the public interest. One reason why Baker embarked on a career in broadcasting was to offer broadcast programming that would be more responsive to local issues and concerns, and to provide an alternative to the generic, commercially-oriented programming presented by most broadcasters. Accordingly, Baker is cognizant of the need to present more broadcast opportunities to the ever increasingly diverse

[1] Vernon H. Baker is President of Positive Alternative Radio, Inc. (PAR), and a shareholder, officer or director of nine other corporations. All told, Mr. Baker has attributable ownership interests in over thirty licensed radio stations or radio construction permits.

segments of our society.

2. Baker believes that the concept of Microstation Radio Broadcasting Service is admirable. However, from a technical standpoint, implementation of such a service on a nationwide basis, and in many regions of the country, will create havoc. Baker commissioned reputable technical counsel (Roy P. Stype, III) to review these matters, and his report is attached hereto. According to Mr. Stype, the following serious problems exist with implementing a microstation radio broadcasting service:

- In order to properly protect the signals of existing broadcasters, it will be necessary to clear seven channels nationwide to institute this new proposed service, thereby requiring the displacement of many existing broadcasters.

- The FM band in many areas of the country is so congested, that it would be virtually impossible to find even one clear channel for this proposal.

- The Skywave propagation in the AM band during nighttime service would cause catastrophic interference, thereby reversing all the recent improvements in AM service resulting from such proceedings as MM Docket 87-267.

- International treaty requirements are likely to stifle the institution of this new service in many areas.

- If, as requested, non-type accepted equipment is permitted, there will be destructive harmonic and spurious radiation problems, which could also result in risk to human life or public safety.

3. Relief is needed for AM Daytimers: As an alternative to implementing the microstation radio broadcasting service, the Commission

should seriously consider a new policy of permitting AM Daytimers to apply for low power FM facilities, where technically permissible, as a means of extending such local service on a full time basis. And, AM Daytimer applicants should be awarded a licensing preference over other parties interested in submitting applications.

4. The Commission should permit a low power FM facility to be operated by an AM Daytimer with facilities similar to those presently permitted for FM translators, so that the AM Daytimer could originate programming during the hours when its AM Daytimer Station is not permitted to operate.

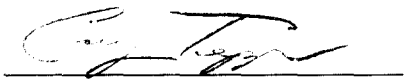
5. Other AM broadcast stations that operate with substantially reduced power at night should also be permitted to apply for new low power FM service, and be awarded a preference over other applicants. As the Commission is well aware, some broadcasters that operate at very low power during critical hours do not even provide a signal over their community of license during such critical hours. In these situations, supplemental service by a new low power FM station would greatly serve the public interest so that the Licensee's community of license receives the nighttime service it deserves.

6. In summary, the Microstation Radio Broadcasting Service proposal is technically incapable of being implemented without creating significant amounts of destructive interference to existing broadcast stations and/or displacing a significant number of broadcast stations. In the alternative, the Commission should permit, where technically feasible, the institution of low

power FM service to complement the service of AM Daytimers.

Respectfully submitted,

VERNON H. BAKER

By: 
Cary S. Tepper

His Attorney

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March 5, 1998

NOTARIZED COPY

ENGINEERING STATEMENT

IN SUPPORT OF COMMENTS

RM-9208

PETITION FOR A MICROSTATION

RADIO BROADCASTING SERVICE

Vernon H. Baker
Blacksburg, VA

February 27, 1998

Prepared for: Mr. Vernon H. Baker
P.O. Box 889
Blacksburg, VA 24063

CARL E. SMITH CONSULTING ENGINEERS

2324 N. CLEVE-MASS RD., BOX 807 216/659-4440 BATH, OHIO 44210-0807

ENGINEERING AFFIDAVIT

State of Ohio)
) ss:
County of Summit)

Roy P. Stype, III, being duly sworn, deposes and states that he is a graduate Electrical Engineer, a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by Vernon H. Baker to prepare the attached "Engineering Statement In Support of Comments - RM-9208 - Petition for a Microstation Radio Broadcasting Service."

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.

Roy P. Stype, III

Subscribed and sworn to before me on **February 27, 1998.**

Notary Public

SHERI LYNN KURTZ, Notary Public
Residence - Summit County
State Wide Jurisdiction, Ohio
My Commission Expires June 14, 2000

/SEAL/

ENGINEERING STATEMENT

This engineering statement is prepared on behalf of Vernon H. Baker. It supports comments with regard to the proposals made in RM-9208, a petition for rulemaking requesting the creation of a Microstation Radio Broadcasting Service in the present AM and FM broadcast bands. This rulemaking petition requests the reservation of one channel in both the existing AM and FM broadcast bands on a nationwide basis or, alternatively, different channels in different geographic areas to achieve the availability of one channel in each band throughout the entire nation for use by microbroadcast stations. Such stations would operate at power levels of one watt or less and be limited to an antenna height of no more than 50 feet, providing service to an area described by the petitioners as "...ranging in size from a square mile to several square miles." The petitioners also propose that microbroadcast stations be permitted to utilize transmitters which have not been type accepted by the FCC, including home built transmitters. This petition contains no engineering data to document that this proposal is technically feasible, but claims, without support, that this proposal can be implemented without causing interference to or displacing any existing broadcast facilities. As outlined below, however, implementation of this proposal would result in significant interference to or require significant displacement of existing broadcast facilities and, furthermore, is technically infeasible for other reasons in addition to this interference/displacement issue.

The receivers presently employed in the AM and FM broadcast services are susceptible to interference not only from stations operating on the same frequency, but

also from stations separated in frequency from the desired signal by up to 3 channels.[1] For this reason, the reservation of one channel in each band on a nationwide basis for microbroadcast station use would result in destructive interference to stations operating on seven channels in each band, with the severity of this interference being the most severe on the same channel as the microbroadcast stations and the least severe on the third adjacent channels. In order to totally eliminate this interference, it would be necessary to clear seven channels in each band on a nationwide basis, resulting in the displacement of a significant number of existing broadcasters.[2] Similar results would occur in most portions of the country if the alternative proposal to reserve different frequencies in different geographic areas to achieve the availability of one channel in each band throughout the entire nation is adopted, due to the fact that both the AM and FM bands are so congested in the most populated portions of the country that there are no channels which could be utilized by microbroadcasting stations without resulting in interference to one or more existing broadcast stations. Furthermore, as a result of this spectral congestion, there are no channels available in these areas to which these existing broadcasters could be moved to eliminate this interference. Even if it can be assumed that interference to existing broadcasters on third adjacent channels can be ignored, due to the low power levels at which the proposed microbroadcast stations would operate, the number of existing broadcast stations which would suffer destructive

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[1]This involves stations separated from the desired frequency by up to 30 kHz in the AM band and 600 kHz in the FM band

[2]This constitutes 6% of the channels in the AM band and 7% of the channels in the FM band and, thus, could reasonably be expected to impact approximately these percentages of the existing stations in these bands.

interference or which would have to be displaced to avoid such interference would be significant.

Additional interference problems would be experienced in the AM band as the result of the skywave propagation which occurs in this band during nighttime hours. This nighttime skywave propagation could potentially result in interference to stations located hundreds of miles from the interfering station. While the incremental increase in nighttime interference to any AM station resulting from any single microbroadcasting station would be small, the cumulative interference impact of hundreds, or perhaps thousands, of these stations would be catastrophic, and would totally undo the progress which has been made in reducing interference in the AM band pursuant to the rule changes made in MM Docket 87-267. In fact, it is likely that the impact of such a proposal would be to degrade the interference situation in the AM band to a worse condition than that which existed prior to the adoption of these rule changes, which were intended to significantly reduce this sort of interference problems. Furthermore, it is likely that the potential for such skywave interference to foreign stations would preclude the adoption of this proposal in the AM band, due to restrictions imposed by international treaties to which the United States is signatory. Similar treaty problems are also likely to be encountered by the FM portion of this proposal in the portions of the country which are located within the required coordination distance of neighboring countries.

The proposal in this petition to permit microbroadcasting stations to utilize transmitting equipment which has not been type accepted by the FCC, including home built transmitters, also raises grave concerns with regard to the potential for interference to other stations, both broadcast stations and stations operating in other services, such as

the land mobile and aviation services. One major reason for requiring type acceptance of broadcast transmitters is to insure that the harmonic and spurious radiation from such transmitters is adequately suppressed to prevent interference to such other stations. Permitting the use of transmitters which have not been type accepted poses a significant risk of such interference which, in some circumstances could result in serious risk to human life or public safety. This is particularly true where interference is caused to stations operating in the public safety or aviation services. Such a situation occurred recently in Puerto Rico, where an unlicensed FM station on 98.1 MHz was causing interference to air traffic control communications at the San Juan airport, forcing the FCC to shut down this unlicensed station and confiscate its equipment when the operator refused to voluntarily cease operation.[3] Such non-type accepted equipment is also more likely to generate intermodulation products in the presence of strong signals from higher powered stations sharing the AM and FM bands, further raising the risk of interference to other stations.

In summary, the proposal contained in this rulemaking petition to create a Microstation Radio Broadcasting Service in the existing AM and FM broadcast bands is technically incapable of being implemented without creating significant amounts of destructive interference to existing broadcast stations and/or displacing a significant number of existing broadcast stations. Furthermore, the proposal in this petition to permit such stations to utilize transmitters which have not been type accepted by the FCC, including home built transmitters is nothing more than a prescription for disaster. In short, the adoption of the proposal outlined in this petition would result in the degradation of the

[3]See CI 98-1, dated February 6, 1998.

AM and FM broadcast bands to the point where they would be on a par with the band employed by the Citizen's Band service. The adoption of such a proposal could also potentially preclude viable options in the ongoing proceeding to adopt standards for digital operation in these bands by existing stations. Finally, the adoption of this proposal would also be patently unfair to existing daytime only AM stations and AM stations with such small nighttime service areas that they are essentially daytimers who have labored for years to serve their communities under the handicap of only being able to operate during daytime hours. A more equitable use of any spectrum which might be available in the FM band would be to provide low power FM facilities for these daytime stations to permit them to serve their communities on a full time basis.[4]

[4]Such a low power FM facility could operate with facilities similar to those presently permitted for FM translators, but would be permitted to rebroadcast the signal of the daytime only AM station and would permitted to originate programming during the hours when the daytime only AM station is not permitted to operate.

CERTIFICATE OF SERVICE

I, Cary S. Tepper, Esquire, hereby certify that on this 5th day of March, 1998, I have served a copy of the foregoing "**Comments of Vernon H. Baker**" first-class, postage-prepaid, on the following:

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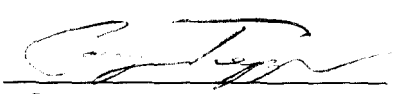

Cary S. Tepper, Esq.

*denotes Delivery By Hand